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THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton 4101 Shuffel Street NW North Canton, OH 44720 Tel: (330)497-9396

TestAmerica Job ID: 240-26475-1

Client Project/Site: Duke MF LLHg 2013 - J13070136

For:

Duke Energy Corporation 139 East Fourth Street Cincinnati, Ohio 45202

Attn: Tara Thomas

Denise Poll

Authorized for release by:

7/17/2013 5:15:34 PM

Denise Pohl, Project Manager II denise.pohl@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 240-26475-1

Qualifiers

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

Case Narrative

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Job ID: 240-26475-1

Laboratory: TestAmerica Canton

Narrative

CASE NARRATIVE

Client: Duke Energy Corporation

Project: Duke MF LLHg 2013 - J13070136

Report Number: 240-26475-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIP1

The samples were received on 07/03/2013; the samples arrived in good condition. The temperatures of the coolers at receipt were 17.2, 19.4 and 22.0C.

DISSOLVED LOW LEVEL MERCURY

Sample 608 WWT DISS (240-26475-8) was analyzed for dissolved Low Level Mercury in accordance with EPA Method 1631E. The samples were prepared on 07/09/2013 and analyzed on 07/11/2013.

Sample 608 WWT DISS (240-26475-8)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the Low Level Mercury analysis.

All quality control parameters were within the acceptance limits.

LOW LEVEL MERCURY

Samples 601 (7) WWT (240-26475-1), 601 (8) WWT (240-26475-2), RI FB (240-26475-3), RI (240-26475-4), 608 WWT FB (240-26475-5), 608 WWT (240-26475-6), 608 WWT DUP (240-26475-7), OUTFALL 002 FB (240-26475-9), OUTFALL 002 (240-26475-10), OUTFALL 002 DUP (240-26475-11) and TRIP BLANK (240-26475-12) were analyzed for Low Level Mercury in accordance with EPA Method 1631E. The

TestAmerica Canton 7/17/2013

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Case Narrative

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Job ID: 240-26475-1 (Continued)

Laboratory: TestAmerica Canton (Continued)

samples were prepared on 07/08/2013 and 07/12/2013 and analyzed on 07/11/2013 and 07/15/2013.

Samples 601 (7) WWT (240-26475-1)[20000X], 601 (8) WWT (240-26475-2)[20000X], 608 WWT (240-26475-6)[20X] and 608 WWT DUP (240-26475-7)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Low Level Mercury analysis.

All other quality control parameters were within the acceptance limits.

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Method Summary

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL CAN

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Sample Summary

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-26475-1	601 (7) WWT	Water	07/01/13 16:55	07/03/13 09:10
240-26475-2	601 (8) WWT	Water	07/01/13 17:10	07/03/13 09:10
240-26475-3	RI FB	Water	07/01/13 17:25	07/03/13 09:10
240-26475-4	RI	Water	07/01/13 17:30	07/03/13 09:10
240-26475-5	608 WWT FB	Water	07/02/13 08:40	07/03/13 09:10
240-26475-6	608 WWT	Water	07/02/13 08:45	07/03/13 09:10
240-26475-7	608 WWT DUP	Water	07/02/13 08:50	07/03/13 09:10
240-26475-8	608 WWT DISS	Water	07/02/13 08:55	07/03/13 09:10
240-26475-9	OUTFALL 002 FB	Water	07/02/13 09:05	07/03/13 09:10
240-26475-10	OUTFALL 002	Water	07/02/13 09:10	07/03/13 09:10
240-26475-11	OUTFALL 002 DUP	Water	07/02/13 09:15	07/03/13 09:10
240-26475-12	TRIP BLANK	Water	07/01/13 00:00	07/03/13 09:10

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TestAmerica Job ID: 240-26475-1

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

Client Sample ID: 601 (7) WWT Lab Sample ID: 240-26475-1 Dil Fac D Method Result Qualifier Unit Analyte RL Prep Type 210000 20000 1631E Mercury 10000 ng/L Total/NA Client Sample ID: 601 (8) WWT Lab Sample ID: 240-26475-2 Result Qualifier Unit Method **Prep Type** Mercury 200000 10000 ng/L 20000 1631E Total/NA Client Sample ID: RI FB Lab Sample ID: 240-26475-3 Analyte Result Qualifier RL Unit Dil Fac D Method Prep Type Mercury 0.89 0.50 ng/L 1 1631E Total/NA Client Sample ID: RI Lab Sample ID: 240-26475-4 Analyte Result Qualifier RL Unit Dil Fac D Method **Prep Type** Mercury 3.8 0.50 ng/L 1631E Total/NA Client Sample ID: 608 WWT FB Lab Sample ID: 240-26475-5 No Detections. Client Sample ID: 608 WWT Lab Sample ID: 240-26475-6 Result Qualifier Dil Fac D Method Analyte RLUnit Prep Type 10 250 20 1631E Mercury ng/L Total/NA Client Sample ID: 608 WWT DUP Lab Sample ID: 240-26475-7 Analyte Result Qualifier RL Unit Dil Fac D Method Prep Type Mercury 240 10 ng/L 20 1631E Total/NA Client Sample ID: 608 WWT DISS Lab Sample ID: 240-26475-8 Analyte Result Qualifier RL Unit Dil Fac D Method Prep Type 33 5.0 ng/L 10 1631E Dissolved Mercury Client Sample ID: OUTFALL 002 FB Lab Sample ID: 240-26475-9

No Detections.

Client Sample ID: OUTFALL 002 Lab Sample ID: 240-26475-10

 Analyte
 Result
 Qualifier
 RL
 Unit
 Dil Fac
 D
 Method
 Prep Type

 Mercury
 4.0
 0.50
 ng/L
 1
 1631E
 Total/NA

Client Sample ID: OUTFALL 002 DUP

Lab Sample ID: 240-26475-11

Analyte	Result Qualifier	RL	Unit	Dil Fac I	Method	Prep Type
Mercury	3.9	0.50	ng/L		1631E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Canton

Detection Summary

Client: Duke Energy Corporation

Client Sample ID: TRIP BLANK

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Lab Sample ID: 240-26475-12

No Detections.

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 601 (7) WWT

Lab Sample ID: 240-26475-1

Date Collected: 07/01/13 16:55 Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	210000	10000	ng/L		07/08/13 08:36	07/11/13 14:55	20000

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 601 (8) WWT Lab Sample ID: 240-26475-2 Date Collected: 07/01/13 17:10

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS) Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac Mercury 200000 10000 ng/L 07/08/13 08:36 07/11/13 14:59 20000

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: RI FB

Lab Sample ID: 240-26475-3

Date Collected: 07/01/13 17:25

Date Received: 07/03/13 09:10

Matrix: Water

 Method: 1631E - Mercury, Low Level (CVAFS)

 Analyte
 Result
 Qualifier
 RL
 Unit
 D
 Prepared
 Analyzed
 Dil Fac

 Mercury
 0.89
 0.50
 ng/L
 07/12/13 13:55
 07/15/13 13:53
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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: RI Lab Sample ID: 240-26475-4 Date Collected: 07/01/13 17:30

Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	3.8		0.50	ng/L		07/08/13 08:36	07/11/13 15:07	1

Client: Duke Energy Corporation

Client Sample ID: 608 WWT FB

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Lab Sample ID: 240-26475-5

Matrix: Water

Date Collected: 07/02/13 08:40 Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS) Analyte Result Qualifier RLUnit D Prepared Analyzed Dil Fac 0.50 U 0.50 Mercury ng/L 07/08/13 08:36 07/11/13 15:11

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 608 WWT

Lab Sample ID: 240-26475-6

Date Collected: 07/02/13 08:45
Date Received: 07/03/13 09:10
Matrix: Water

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac

 Mercury
 250
 10
 ng/L
 07/08/13 08:36
 07/11/13 15:15
 20

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 608 WWT DUP

Lab Sample ID: 240-26475-7

Date Collected: 07/02/13 08:50 Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)									
	Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	240		10	ng/L		07/08/13 08:36	07/11/13 15:19	20

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: 608 WWT DISS

Lab Sample ID: 240-26475-8 Date Collected: 07/02/13 08:55 Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS) - Dissolved								
	Analyte	Result Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Mercury	33	5.0	ng/L		07/09/13 09:23	07/11/13 09:55	10

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

Client Sample ID: OUTFALL 002 FB

TestAmerica Job ID: 240-26475-1

Lab Sample ID: 240-26475-9

Matrix: Water

Date Collected: 07/02/13 09:05 Date Received: 07/03/13 09:10

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Morouny	0.50	П	0.50	ng/l		07/08/13 08:36	07/11/13 15:27	

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

Client Sample ID: OUTFALL 002

TestAmerica Job ID: 240-26475-1

Lab Sample ID: 240-26475-10

Matrix: Water

Date Collected: 07/02/13 09:10 Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)

Analyte		ualifier RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	4.0	0.50	ng/L		07/08/13 08:36	07/11/13 15:22	1

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

Client Sample ID: OUTFALL 002 DUP

TestAmerica Job ID: 240-26475-1

Lab Sample ID: 240-26475-11

Matrix: Water

Date Collected: 07/02/13 09:15 Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS) Analyte Result Qualifier RLUnit D Analyzed Dil Fac Prepared Mercury 3.9 0.50 ng/L 07/08/13 08:36 07/11/13 15:31

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Client Sample ID: TRIP BLANK Lab Sample ID: 240-26475-12

Date Collected: 07/01/13 00:00 Matrix: Water

Date Received: 07/03/13 09:10

Method: 1631E - Mercury, Low Level (CVAFS)										
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Mercury	0.50	U	0.50	ng/L		07/08/13 08:36	07/11/13 15:50	1		

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Prep Batch: 92778

Prep Batch: 92962

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Dissolved

Prep Batch: 92962

Client Sample ID: Method Blank

Prep Batch: 93554

Prep Batch: 93554

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

Method: 1631E - Mercury, Low Level (CVAFS)

Lab Sample ID: MB 240-92778/1-A Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 93463

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Result Qualifier RL Unit D Prepared Dil Fac Analyte Analyzed 0.50 ng/L 07/08/13 08:36 07/11/13 13:14 Mercury 0.50 U

Lab Sample ID: LCS 240-92778/2-A Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA Prep Batch: 92778

Analysis Batch: 93463

LCS LCS Spike Added Analyte Result Qualifier Unit %Rec Limits Mercury 5.00 5.31 ng/L 106 77 - 123

Lab Sample ID: MB 240-92962/1-A Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 93463 мв мв

Analyte Result Qualifier RL Unit D Prepared Analyzed Dil Fac 0.50 U 0.50 ng/L 07/09/13 09:23 07/11/13 09:05 Mercury

Lab Sample ID: LCS 240-92962/2-A Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA **Analysis Batch: 93463** Prep Batch: 92962 LCS LCS Spike %Rec.

Analyte Added Result Qualifier Unit %Rec Limits 77 123

5.00 Mercury 5.91 ng/L 118

Lab Sample ID: MB 240-93554/1-A Client Sample ID: Method Blank **Matrix: Water**

Analysis Batch: 93710

MR MR

Result Qualifier RL Unit Dil Fac Analyte D Prepared Analyzed 0.50 07/12/13 13:55 0.50 U ng/L 07/15/13 11:34 Mercury

Lab Sample ID: LCS 240-93554/2-A Client Sample ID: Lab Control Sample

Matrix: Water

Analysis Batch: 93710

Spike LCS LCS Analyte Added Result Qualifier Unit D %Rec Limits

5.00 77 - 123 Mercury 5.30 ng/L 106

Lab Sample ID: PB 240-92771/1-B PB **Matrix: Water**

Analysis Batch: 93463

РВ РВ

Analyte Result Qualifier RL Unit Prepared Analyzed Dil Fac Mercury 0.50 U 0.50 ng/L 07/09/13 09:23 07/11/13 09:14

TestAmerica Canton

QC Association Summary

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Metals

Cleanup Batch: 92771

ı	Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
	240-26475-8	608 WWT DISS	Dissolved	Water	Filtration	
١	PB 240-92771/1-B PB	Method Blank	Dissolved	Water	Filtration	

Prep Batch: 92778

Prep Batch	Method	Matrix	Prep Type	Client Sample ID	Lab Sample ID
_	1631E	Water	Total/NA	601 (7) WWT	240-26475-1
	1631E	Water	Total/NA	601 (8) WWT	240-26475-2
	1631E	Water	Total/NA	RI	240-26475-4
	1631E	Water	Total/NA	608 WWT FB	240-26475-5
	1631E	Water	Total/NA	608 WWT	240-26475-6
	1631E	Water	Total/NA	608 WWT DUP	240-26475-7
	1631E	Water	Total/NA	OUTFALL 002 FB	240-26475-9
	1631E	Water	Total/NA	OUTFALL 002	240-26475-10
	1631E	Water	Total/NA	OUTFALL 002 DUP	240-26475-11
	1631E	Water	Total/NA	TRIP BLANK	240-26475-12
	1631E	Water	Total/NA	Lab Control Sample	LCS 240-92778/2-A
	1631E	Water	Total/NA	Method Blank	MB 240-92778/1-A

Prep Batch: 92962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-8	608 WWT DISS	Dissolved	Water	1631E	92771
LCS 240-92962/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-92962/1-A	Method Blank	Total/NA	Water	1631E	
PB 240-92771/1-B PB	Method Blank	Dissolved	Water	1631E	92771

Analysis Batch: 93463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-1	601 (7) WWT	Total/NA	Water	1631E	92778
240-26475-2	601 (8) WWT	Total/NA	Water	1631E	92778
240-26475-4	RI	Total/NA	Water	1631E	92778
240-26475-5	608 WWT FB	Total/NA	Water	1631E	92778
240-26475-6	608 WWT	Total/NA	Water	1631E	92778
240-26475-7	608 WWT DUP	Total/NA	Water	1631E	92778
240-26475-8	608 WWT DISS	Dissolved	Water	1631E	92962
240-26475-9	OUTFALL 002 FB	Total/NA	Water	1631E	92778
240-26475-10	OUTFALL 002	Total/NA	Water	1631E	92778
240-26475-11	OUTFALL 002 DUP	Total/NA	Water	1631E	92778
240-26475-12	TRIP BLANK	Total/NA	Water	1631E	92778
LCS 240-92778/2-A	Lab Control Sample	Total/NA	Water	1631E	92778
LCS 240-92962/2-A	Lab Control Sample	Total/NA	Water	1631E	92962
MB 240-92778/1-A	Method Blank	Total/NA	Water	1631E	92778
MB 240-92962/1-A	Method Blank	Total/NA	Water	1631E	92962
PB 240-92771/1-B PB	Method Blank	Dissolved	Water	1631E	92962

Prep Batch: 93554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-3	RIFB	Total/NA	Water	1631E	
LCS 240-93554/2-A	Lab Control Sample	Total/NA	Water	1631E	
MB 240-93554/1-A	Method Blank	Total/NA	Water	1631E	

TestAmerica Canton

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QC Association Summary

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Metals (Continued)

Analysis Batch: 93710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-26475-3	RIFB	Total/NA	Water	1631E	93554
LCS 240-93554/2-A	Lab Control Sample	Total/NA	Water	1631E	93554
MB 240-93554/1-A	Method Blank	Total/NA	Water	1631E	93554

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Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

Client Sample ID: 601 (7) WWT

Date Collected: 07/01/13 16:55 Date Received: 07/03/13 09:10 Lab Sample ID: 240-26475-1

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		20000	93463	07/11/13 14:55	DSH	TAL CAN

Client Sample ID: 601 (8) WWT L

Date Collected: 07/01/13 17:10

Date Received: 07/03/13 09:10

ab S	Sample	ID:	240-26	3475-2
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Matrix: Water

İ		Batch	Batch		Dilution	Batch	Prepared		
	Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
	Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
ĺ	Total/NA	Analysis	1631E		20000	93463	07/11/13 14:59	DSH	TAL CAN

Client Sample ID: RI FB Lab Sample ID: 240-26475-3

Date Collected: 07/01/13 17:25

Date Received: 07/03/13 09:10

Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			93554	07/12/13 13:55	ADS	TAL CAN
Total/NA	Analysis	1631E		1	93710	07/15/13 13:53	DSH	TAL CAN

Client Sample ID: RI Lab Sample ID: 240-26475-4

Date Collected: 07/01/13 17:30

Date Received: 07/03/13 09:10

Lab	Sample	יטו.	240-204/5-4	
			Matrix: Water	

ı		Batch	Batch		Dilution	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
	Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
ı	Total/NA	Analysis	1631E		1	93463	07/11/13 15:07	DSH	TAL CAN

Client Sample ID: 608 WWT FB Lah Sample ID: 240-26475-5

Date Collected: 07/02/13 08:40

Date Received: 07/03/13 09:10

Lab Gample IL	7. 240-204 13-3
	Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		1	93463	07/11/13 15:11	DSH	TAL CAN

Client Sample ID: 608 WWT Lab Sample ID: 240-26475-6 Date Collected: 07/02/13 08:45 **Matrix: Water**

Date Received: 07/03/13 09:10

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		20	93463	07/11/13 15:15	DSH	TAL CAN

TestAmerica Canton

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

Client Sample ID: 608 WWT DUP

Lab Sample ID: 240-26475-7 Date Collected: 07/02/13 08:50 **Matrix: Water**

Date Received: 07/03/13 09:10

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Total/NA Prep 1631E 92778 07/08/13 08:36 DSH TAL CAN Total/NA 1631E 07/11/13 15:19 DSH Analysis 20 93463 TAL CAN

Client Sample ID: 608 WWT DISS

Lab Sample ID: 240-26475-8

Date Collected: 07/02/13 08:55 Matrix: Water Date Received: 07/03/13 09:10

Batch Dilution Batch Batch Prepared Prep Type Туре Method Factor Number or Analyzed Analyst Lab Run Dissolved Cleanup Filtration 92771 07/03/13 15:26 DSH TAL CAN Dissolved Prep 1631E 92962 07/09/13 09:23 DSH TAL CAN 1631E 07/11/13 09:55 DSH Dissolved Analysis 10 93463 TAL CAN

Client Sample ID: OUTFALL 002 FB Lab Sample ID: 240-26475-9

Date Collected: 07/02/13 09:05 **Matrix: Water**

Date Received: 07/03/13 09:10

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Total/NA Prep 1631E 92778 07/08/13 08:36 DSH TAL CAN Total/NA Analysis 1631E 93463 07/11/13 15:27 DSH TAL CAN

Client Sample ID: OUTFALL 002 Lab Sample ID: 240-26475-10

Date Collected: 07/02/13 09:10 Matrix: Water

Date Received: 07/03/13 09:10

Batch Batch Dilution Batch Prepared Method Prep Type Туре Run Factor Number or Analyzed Analyst Lab Total/NA Prep 1631E 92778 07/08/13 08:36 DSH TAL CAN Total/NA Analysis 1631E 93463 07/11/13 15:22 DSH TAL CAN

Client Sample ID: OUTFALL 002 DUP Lab Sample ID: 240-26475-11

Date Collected: 07/02/13 09:15 Matrix: Water

Date Received: 07/03/13 09:10

Batch Batch Dilution Batch Prepared Method Factor Number or Analyzed Prep Type Туре Run Analyst Lab Total/NA Prep 1631E 92778 07/08/13 08:36 DSH TAL CAN Total/NA Analysis 1631E 93463 07/11/13 15:31 DSH TAL CAN

Client Sample ID: TRIP BLANK Lab Sample ID: 240-26475-12

Date Collected: 07/01/13 00:00 Matrix: Water

Date Received: 07/03/13 09:10

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	1631E			92778	07/08/13 08:36	DSH	TAL CAN
Total/NA	Analysis	1631E		1	93463	07/11/13 15:50	DSH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

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Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TestAmerica Job ID: 240-26475-1

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Certification Summary

Client: Duke Energy Corporation

Project/Site: Duke MF LLHg 2013 - J13070136

TestAmerica Job ID: 240-26475-1

Laboratory: TestAmerica Canton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0590	12-31-13
Florida	NELAP	4	E87225	06-30-14
Georgia	State Program	4	N/A	06-30-14
Illinois	NELAP	5	200004	07-31-13
Kansas	NELAP	7	E-10336	01-31-14
Kentucky	State Program	4	58	06-30-14
L-A-B	DoD ELAP		L2315	07-28-13
Minnesota	NELAP	5	039-999-348	12-31-13
Nevada	State Program	9	OH-000482008A	07-31-13 *
New Jersey	NELAP	2	OH001	06-30-14
New York	NELAP	2	10975	04-01-14
Ohio VAP	State Program	5	CL0024	01-19-14
Pennsylvania	NELAP	3	68-00340	08-31-13
Texas	NELAP	6		08-03-13
USDA	Federal		P330-11-00328	08-26-14
Virginia	NELAP	3	460175	09-14-13
Washington	State Program	10	C971	01-12-14
Wisconsin	State Program	5	999518190	08-31-13

^{*} Expired certification is currently pending renewal and is considered valid.

TestAmerica Canton

1 1 N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	668 WWT D	LOG WANT D	BUTFALL 803	OUTFALL BOZ	Possible Hazard Identification Non-Hazard Terminate & C		Redaquished by:	The state of the s	Relinquisher 69:	ADMO Tarkmorphy physicisterics Inc. & finite received
						(7/17/	/2013	

TestAmerica	TestAmerica Laboratories, Inc.	COC No: 57612	of 2 cocs	That labs user orally	Walk-in-clicus Las prockup	Cate semanticular	COASTOCINO.		Sample Specific Notes / Special Instructions:			To the last of the		ustody						hs		Date/Time: 72-/3/1540	Date/Time:	Date/Time:
¥ • • • • • • • • • • • • • • • • • • •				Analyses										240-26475 Chain of Custody						en 1 month)		Company Leve. 7.	Company:	Company:
	Other	Lab Contact:	For Telephone:				5=qe.15] ,			× S	×	>	>	×	. 🗴	×	×	×	>z	Sample Disposal (A free may be assessed To samples are retained longer than 1 month) Return to Client			9 deer	
	RCRA	35	3-370-4270	Analysis Purnaround Time (6 MC Lass)	erengtion belowhered	2 weeks	2 days	Containers & Preservatives	нсі Маон Спртся Опрет:	4	4	C	4	7	7	4		ce	4	posal (A fee may be assessed in urn to Client Dispo		Robbins (Received in Laboratory by:
Chain CAJ	□ DW □□ NPDES	(22) Site Contact:	Telephone:	5.2	TAT if differention			Watrisk Cont	HIO3 Other: Solid										1	Sample Dis		ate/Time: / 0940	13/	Date/Time:
2	gram:	Client Project Manager:	651-3	Small: My C. Luck F. C.		Method of Shipment/Carrier:	Shipping/Tracking No:	H -	Sample Time Admons	3 1665 x		1725 X	1740 X		SAS X	06850 ×	1885 ×	Mes X	10910 X	Poison B		<u>a</u> Cr		
TestAmerica La	Res	Client Pro		+		Method of			Sample Date	1-1-13			→	72.13	frag		\ <u>\</u>	F.6		Skin furitant	Dents:	C S Chipany:	Company:	Сощрану:
	Client Contact	DUKE EERSN	MARI FOR SALVION	10 Per 10		Project Name:	1		Sample Identification	7) James	3) NWT	ŹB		WINT FB	LINIT		WANT DISS	BUTFALL BOD 1	OUTFALL BOZ	Possible Hazard Identification Non-Hazard	nons/Uc Kequirements & Com	X		נט
		Company Name:	Address:	City/State/Zip:	Phone:	Project Name:	Project Numb	PO#		7	(8)	PA,	\S	200	hod	66%	108	OCT P	607	Possible Hazard Id	Special instru	Reinquished by:		Relinquishero

Page 29 of 31

TestAmerica Canton S	Sample Receipt Form/Narrative	Login#: 2/0475
Canton Facility	Ampie receipt r oranitative	Lugin #:
Client Ouke 6	Site Name	Cooler unpacked by:
Cooler Received on	-3-13 Opened on $7-3$	=12 Mulh Deen
FedEx: 1st Grd Exp	UPS FAS Stetson Client Drop Off Test	America Courier Other
TestAmerica Cooler#		
Packing material use		one Other
COOLANT:	Wet Ice Blue Ice Dry Ice Water	
1. Cooler temperature u		3110
IR GUN# A (CF		orrected Cooler Temp. °C
IR GUN#4 (CF		10 1 7
IR GUN# 5 (CF	and the second s	1.5
IR GUN#8 (CF		orrected Cooler Temp. °C Cooler Form
2. Were custody seals of	on the outside of the cooler(s)? If Yes Quantit	nrected Cooler Temp.
-Were custody seals	on the outside of the cooler(s) signed & dated?	
-Were custody seals	on the bottle(s)?	Yes) No NA
3. Shippers' packing slir	p attached to the cooler(s)?	Tes (No)
4. Did custody papers ac	ccompany the sample(s)?	Yes No
5. Were the custody papers at	ecompany the sample(s)? pers relinquished & signed in the appropriate place	No No
b. Word the educate bab	sers reiniquished & signed in the appropriate place	e? No
6. Did all bottles arrive i	in good condition (Unbroken)?	
7. Could all bottle labels	in good condition (Unbroken)? s be reconciled with the COC?	No No
		Yes No
9. Sufficient quantity rec) used for the test(s) indicated?	Yes No
outhorem quantity rec	ceived to perform indicated analyses?	No No
10. Were sample(s) at the	correct pH upon receipt?	Yes No NA pH Strip Lot# HC376062
11. Were VOAs on the Co		Yes No
12. Were air bubbles >6 n	nm in any VOA vials?	Yes No NA
13. Was a trip blank prese	ent in the cooler(s)?	COO DOG 7-3-13
Contacted PM	Date by	via Verbal Voice Mail Other
Concerning	772	
14. CHAIN OF CUSTO	DY & SAMPLE DISCREPANCIES	Samples/processed by:
THE CHARMA OF COOLOR	DI & SAMIPLE DISCREPANCIES	Len IX
		The season of th
		-
15. SAMPLE CONDITION	ON	
0 1 1 1		commended holding time had expired.
Sample(s)	TO TO TOO TOO HELD TOO	were received in a broken container.
Sample(s)	were received with	bubble >6 mm in diameter. (Notify PM)
16. SAMPLE PRESERV		1 outble >0 mm in diameter. (Notify PM)
	ALIUN	
Sample(s) Time preserved:		were further preserved in the laboratory.
	Preservative(s) added/Lot number(s):	

Analytical Laboratory Request Form (ARF)

papital or other special projects is needed.
Customer Information Name Office Phone Mike Wagner 613 651 3440 NA Fax 8-Mail Address 1 877 660 7727 mike.wagner@urs.com Accounting Fields ***Only complete if specific charging to poplete is needed.
Name Office Phone Call Phone Mike Wagner 513 651 3440 NA Fax Be-Mail Address 1 877 660 7727 mike.wagner@urs.com Accounting Fields ***Only complete if specific charging to papital or other special projects is needed.
Mike Wagner 513 651 3440 NA Fax e-Mail Address 1 877 660 7727 mike.wagner@urs.com Accounting Fields ** Only complete if specific charging to capital or other special projects is needed.
1 877 660 7727 mike.wagner@urs.com Accounting Fields ** Only complete if specific charging to papital or other special projects is needed.
Accounting Fields ** Only complete if specific charging to Field Type Specific Field papital or other special projects is needed.
** Only complete if specific charging to <u>Field Type</u> <u>Specific Field</u> papital or other special projects is needed.
papital or other special projects is peeded.
holude field type and specific field entry, ***
Sampling Information
Sampling Personnel / Contractor Scheduled Sampling Date Date Sample Kit Needed URS Field Staff Geologist / URS 7/ 1-2 /2013 6/28/2013
Shipping Address for Kit
Name Phone Mail Code Mike Wagner 513 419 3433 NA
Street Address — street address and lown needed State Zio Code
525-Vine Street Suite 1800, Cincinneti, Ohio 45202 Ohio 45202
Reporting Report Due Date: Additional Reports - pdf file w/ Basic QC and EDD (spreadsheet) is Standard
7/19/2013 Standard
Report To (e-Mail Address 1) Report To (e-Mail Address 2) Report to (e-Mail Address 3) mike,wagner@urs.com michael.byrd@duke-energy.com sue.wallace@duke-energy.com
Project Specifics
Project Name Program Type
Miami Fort LL Hg 2013 NPDES Monitoring Site: Location or Station State Approximate Number of Days Sampling is Schedul
Miamil Fort Station, Hamilton Co. Chio 2
Notes, Special Requests, Required Contract Lab to use, etc. (LIMS Job Number-Duke Lab Provides) *estAmerica - North Canton, Ohio (contact - Denise Pohi) Note - Data report (prepared by URS) due to Miami Fort Station by end of mont
ampling, July 2013 Event
Bottles Matrix Variables, Methods 8 (four vial package) water (seven locations) LL Hg (collected by method 1669, analysis by Method 1631)
(one location) Dissolved LL Hg (0.45 micron, filtered at laboratory)(collected by method 1669;
enalysis by Method 1631)
3 field blanks water LL Hg (collected by method 1669, analysis by Method 1631) 1 trip blank water LL Hg (Method 1631)
Jen (